

6 stations communicating with a local base station associated with said given cell, with each of said  
7 plurality of subscriber stations communicating with said local base station through a given sector  
8 beam antenna of said plurality of sector beam antennas, each subscriber station having a narrow  
9 transmission beam width antenna oriented towards said given sector beam antenna, said  
10 communication signal configuration arrangement comprising:

11 one set of communication signal configurations being assigned to said plurality of  
12 subscriber stations differing from another set of communication signal  
13 configurations being assigned to another plurality of subscriber stations, said  
14 another plurality of subscriber stations occupying another sector in a same  
15 relative location in an immediately adjacent cell to that of said given sector,  
16 wherein said one set of communication signal configurations enables each subscriber  
17 station of said plurality of subscriber stations to transmit communication signals  
18 to said given base station without substantially interfering with any other  
19 communication signals received by another base station in said immediately  
20 adjacent cell.

REMARKS

Upon entry of this amendment, which amends claim 26, claims 1-32 remain pending. IN the Office Action, the Examiner objected to application under 37 CFR §1.172(a), citing that the assignee has not established its ownership interest in the patent for which reissue is being requested.

Applicants request that examination of re-issue application proceed without an assent of the Assignee for the time being. Applicants were granted their petition for a waiver under 37 CFR §1.183 of the requirement under 37 C.F.R. §1.172 for this reissue application to be examined. Full determination of issues identified in the petition for a waiver have not yet been clarified. Applicants understand that such issues will have to be clarified with appropriate assent(s) and/or submission made prior to allowance of any re-issue application.

The Examiner objected to the re-issue application as lacking an offer to surrender the original patent, or alternatively, provide a declaration of loss of same. Applicants traverse this objection by providing herewith an Offer to Surrender the original patent in due course before allowance of the re-issue application.

The Examiner objected to the oath/declaration filed with the re-issue application as lacking a statement that errors being corrected under the re-issue application up to the time of filing the

oath/declaration arose without deceptive intent on behalf of the applicant, per 37 C.F.R. §1.175 and a statement that the inventor is a joint inventor of the claimed invention, per 37 C.F.R. §1.63(a)(4).

Applicants traverse the objections under 37 C.F.R. §1.175 and §1.63(a)(4) by providing herewith Supplemental Declarations executed by the inventors each of which contain a statement that all errors that are being corrected in the re-issue application up to the time of filing the declaration arose without any deceptive intent on the part of the Applicants and a statement that each inventor is a joint inventor of the invention claimed as required by 37 C.F.R. § 1.63(a)(4).

Examiner rejected claims 1-32, as being based upon a defective re-issue declaration under 35 U.S.C. § 251 and 37 C.F.R. §1.175.

Applicants traverse such rejection of claims 1-32 on the basis of the filed Supplemental Declarations and the original Declaration.

Claim 26 is amended to clarify aspects relating to the assignment of the set of communication signal configurations, such that the phrase "assigning one set of communication signal configurations to said plurality of subscriber stations differing from another set of communication signal configurations assigned to another plurality of subscriber stations" is replaced with --"one set of communication signal configurations being assigned to said plurality of subscriber stations differing from another set of communication signal configurations being assigned to another plurality of subscriber stations"--.

The Examiner rejected claims 26-32 under 35 U.S.C. § 251 as being an improper recapture of claimed subject matter cancelled in the application for the patent upon which the present re-issue application is based.

Applicant submits that claims 26-32 are not an improper recapture of subject matter cancelled in the application for the following reasons. A two step test has been cited for recapture as follows:

The first step in applying the recapture rule is to determine whether and in what aspect the reissue claims are broader than the patent claims....

The second step is to determine whether the broader aspects of the reissue claims relate to surrendered subject matter.

*See Mentor Corp. v. Coloplast, Inc.*, 998 F.2d 992, 994-996 (Fed. Cir. 1993).

Applicant submits that claims 26-32 are directed towards a cellular communication signal configuration, which is distinct from the local multipoint distribution system of the claims of the original application. The broader aspects of claims 26-32 thus do not relate to the

surrendered subject matter.

Also, if the broader aspects of claim 26 were related to the original claims, the Examiner would be able to cite the art cited against the original claims against claims 26-32. In the original application, the Examiner cited U.S. patent 5,276,907 to Meidan, U.S. patent 5,448,753 to Ahl and U.S. patent 5,265,119 to Gilhousen and rejected the original claims on the teaching of the prior art. Meidan is directed to a system which dynamically distributes a communication channel load by actively changing the beamwidth of antennas in a sector. Ahl is directed to a system in which neighboring cells have transmissions of their stations timed to reduce interference. Gilhousen teaches a system which uses code division multiplexing to control the power of signals transmitted by mobile units to reduce interference between units. Claims 26-32 are patentable over Meidan, Ahl and Gilhousen as none of the prior art is directed to the field of claims 26-32, i.e., cellular communication signal arrangements, as claimed. Further, none of the prior art cited in the original application teach the arrangement where narrowband subscriber stations in a sector in a cell communicate with a base station each use a transmission frequency which differs from transmission frequencies used by adjacent subscriber stations in adjacent cells, thereby minimizing interference at base stations which receive transmissions from adjacent cells. Accordingly, claims 26-32 do not provide a recapture of the surrendered subject matter in the original application.

Examiner rejected claims 26-32 under 35 U.S.C. 103(a), as being unpatentable in view of U.S. Patent 4,128,740 of Graziano. Applicants submit that the elements of claims 26-32 are not obvious in view of Graziano for the following reasons. First, Graziano is directed towards a frequency allocation system for a base station for a cellular communication frequency arrangement used by a base station in a mobile communication network when communicating with mobile stations in a cell. Accordingly, the arrangement in Graziano is used to minimize adjacent channel interference which may be experienced by the mobile units from transmissions from a base station. See Column 2, lines 28 to 35, Figures 6 and 7, and Column 4, lines 12-43. Meanwhile, the invention is directed towards minimizing transmission interference by transmissions received at a base station, per claims 26-32. This is accomplished by a cellular communication signal arrangement, wherein one set of communication signal configurations is assigned to a plurality of subscriber stations differing from another set of communication signal configurations being assigned to another plurality of subscriber stations. There is no teaching or suggestion in Graziano that its system should be

applied to a cellular communication signal configuration arrangement for subscriber stations to minimize interference of signals at a base station. Also, Applicants' invention is further enhanced by using narrowband communication techniques for the subscriber stations. While the Examiner took official notice of prior knowledge of narrowband communication techniques, Graziano and such prior knowledge, if supported, do not teach or suggest that narrowband communication techniques may be used by subscriber stations communicating with a base station in conjunction with the arrangement as claimed. In view of the above, it is submitted that the subject matter in claims 26-32 are not obvious in view of Graziano and purported prior art knowledge.

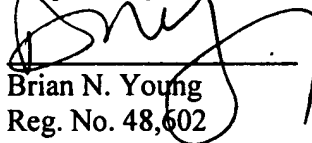
**Closing Remarks**

No new subject matter is added with the amendments.

Applicants submit that the claims pending in this re-issue application are presently in a condition for allowance. Therefore Applicants request early and favourable disposition of this application.

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Respectfully submitted



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

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In the claims

*Claim 26 is amended as indicated herebelow:*

26. (amended) A cellular communication signal configuration arrangement for use in a cellular communication system comprising

- a plurality of cells, each of said plurality of cells comprising a plurality of sectors,
- a base station associated with each of said plurality of cells, a plurality of sector beam antennas associated with said base station,
- a plurality of subscriber stations in a given cell of said plurality of cells in each of said plurality of sectors,
- said plurality of subscriber stations communicating with a local base station associated with said given cell, with each of said plurality of subscriber stations communicating with said local base station through a given sector beam antenna of said plurality of sector beam antennas,
- each subscriber station having a narrow transmission beam width antenna oriented towards said given sector beam antenna,

said communication signal configuration arrangement comprising:

- ~~[assigning]~~ one set of communication signal configurations being assigned to said plurality of subscriber stations differing from another set of communication signal configurations being assigned to another plurality of subscriber stations, said another plurality of subscriber stations occupying another sector in a same relative location in an immediately adjacent cell to that of said given sector, wherein said one set of communication signal configurations enables each subscriber station of said plurality of subscriber stations to transmit communication signals to said given base station without substantially interfering with any other communication signals received by another base station in said immediately adjacent cell.

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Do NOT ENTER. MARKED - UP VERSION  
NOT in compliance w/ 37CFR 1.173(b)